

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 12, line 21, with the following amended paragraph:

--The glandular involvement causes a marked reduction in fluid secretion, resulting in xerostomia and xerophthalmia (dry eyes). The constant oral dryness causes difficulty in speaking, chewing, and swallowing; the dry eyes often itch and feel gritty. There is no cure for Sjogren's, and patients often carry eye drops and water bottles or saliva substitutes in an attempt to provide symptomatic relief. Clinically, the reduction in salivary flow changes the bacterial flora, which, in addition to the reduction in salivary protective components, increases the risk of caries and candidiasis (Daniels and Fox, *Rheum. Dis. Clin. North Am.*, **18**:571-589 (1992)). Recent studies have indicated that there is a reduction in masticatory function (Dusek, et al. *Gerodontology* 13(1):3-6 (1996)) and an increased prevalence of periodontal disease (Najera, et al., *Oral Surg. Oral Med. Oral Pathol Oral Radiol. Endol.*, **83**(4)453-7 (1997)). In advanced stages the salivary glands can well because of obstruction and infection or lymphatic infiltration. In both forms of the disease, other systems can eventually become affected. Nasal, laryngeal, and vaginal dryness can occur, as well as abnormalities in internal organs (Oxholm and Asmussen, *J. Intern. Med.*, **239**:467-474 (1996)). Patients with Sjogren's syndrome are at some risk of developing diseases such as non-Hodgkin's lymphoma; clinical data indicate that such lymphomas develop in 5 percent of patients with Sjogren's syndrome (~~Moutsopoulos et al., *Am J. Med.*, **64**(5):732-741 (1978)).~~--

Please replace the paragraph beginning at page 5, line 26, with the following amended paragraph:

--The forms of periodontitis occurring in adolescents and young adults generally involve defects in neutrophil function (Van Dyke et al., *Infect. Immun.* 27(1):~~124-31~~ 124-32 (1980)). Localized juvenile periodontitis (LJP) mainly affects the first molar and incisor teeth of teenagers and young adults, with rapid destruction of bone but also no telltale signs of inflammation and very little supragingival plaque or calculus. *Actinobacillus actinomycetemcomitans* has been isolated at 90 to 100 percent of diseased sites in these patients, but is absent or appears in very low

frequency in healthy or minimally diseased sites (Socransky and Haffajee, *J. Periodontol.*, **63**(4 Suppl.):332-31 (1992)). It is possible that the bacteria are transmitted among family members through oral contacts such as kissing or sharing utensils, because the same bacterial strain appears in affected family members. However, evidence of a neutrophil defect argues for a genetic component. Another organism frequently associated with LJP is *Capnocytophaga ochracea*. Neither of these bacteria dominate in the generalized adult form of the disease, where *Porphyromonas gingivalis* is considered of greatest significance (Schenkein and Van Dyke, *Periodontol.*, **6**:7-25 (1994)).--

Please replace the paragraph beginning at page 6, line 27, with the following amended paragraph:

--Recent studies have also underscored the association of oral infections with certain medically important conditions. Increasing data implicate periodontal disease as a risk factor for cardiovascular diseases such as heart attack and stroke (See e.g., U.S. Patent No. 6,130,042 to Diehl, et al.; J. Beck, et al., *J. Periodontol.*, **67**:1123-37 (1996)). Epidemiologic studies indicate that, even after accounting for other known risk factors for cardiovascular disease, the relative risk attributable to periodontal infections is significant. Secondly, recent studies have shown that mothers with periodontitis are at greater risk for having low weight babies than those without periodontitis (Offenbacher et al., *J. Periodontol.*, **67**:1103-13 (1996)).--

Please replace the paragraph beginning at page 11, line 13, with the following amended paragraph:

--Oral cancer is the sixth most common cancer in U.S. males and takes a disproportionate toll on minorities; it now ranks as the fourth most common cancer among African American men (~~Kosary, et al., SEER Cancer Statistics Review, NIH Pub. No. 96-2789 (1995)~~). The most common oral sites are on the tongue, the lips, and the floor of the mouth.--

Please replace the paragraph beginning at page 29, line 8, with the following amended paragraph:

--In a preferred embodiment, the methods of the present invention analyze an unstimulated or stimulated saliva sample to test for the risk of a disease. Saliva specimens for testing can be collected following various methods known in the art. Proper conditions for generating unstimulated saliva have been described in ~~Nazareth~~ Navazesh and Christiansen, *J. Dent. Res.*, **61**:1158-1162 (1982)). Methods and devices for collecting saliva have also been described (U.S. Patent No. 5,910,122 to D'Angelo; U.S. Patent No. 5,714,341 to Thieme et al.; U.S. Patent Nos. 5,335,673 and 5,103,836 to Goldstein et al.; U.S. Patent No. 5,268,148 to Seymour; and U.S. Patent No. 4,768,238 to Kleinberg et al., each of which is incorporated herein in its entirety by reference). It is contemplated that the methods of the present invention can also be practiced by analyzing stimulated saliva.--

Please replace the paragraph beginning at page 40, line 26, with the following amended paragraph:

--U.S. Patent No. ~~5,696,929~~ 5,695,929 to Goldstein also describes a saliva standard for measuring the efficacy of saliva collection kits and for comparing and standardizing analytical methods. Generally, the inventive substitute saliva standard has the composition (ingredients presented as mmol/liter): Nitrite 0.1-0.2; Magnesium 0.15-0.6; Calcium 0.5-0.47; Sodium 2-80; Phosphate 1.5-25; Chloride 10-56; Potassium 13-40; Bicarbonate 2-35; Thimerosal 0.01-0.1 g/100 ml; Amylase 0.025-0.1 g/100 ml; Mucin (5%) 0.02-0.5 g/liter; Antipain 0.05 mg/liter; Deionized Water QS to 1 L (approx. eq. 998 ml).--